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(74) Agents: GOLLIN, Michael A. et al.; VENABLE LLP, P.O. Box 34385, Washington, District of Columbia 20043-9998 (US).

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(71) Applicant (for all designated States except US): THE GOVERNMENT OF THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US]; 6011 Executive Boulevard, Suite 325, National Institutes of Health, Office of Technology Transfer, Rockville, Maryland 20852-3804 (US).

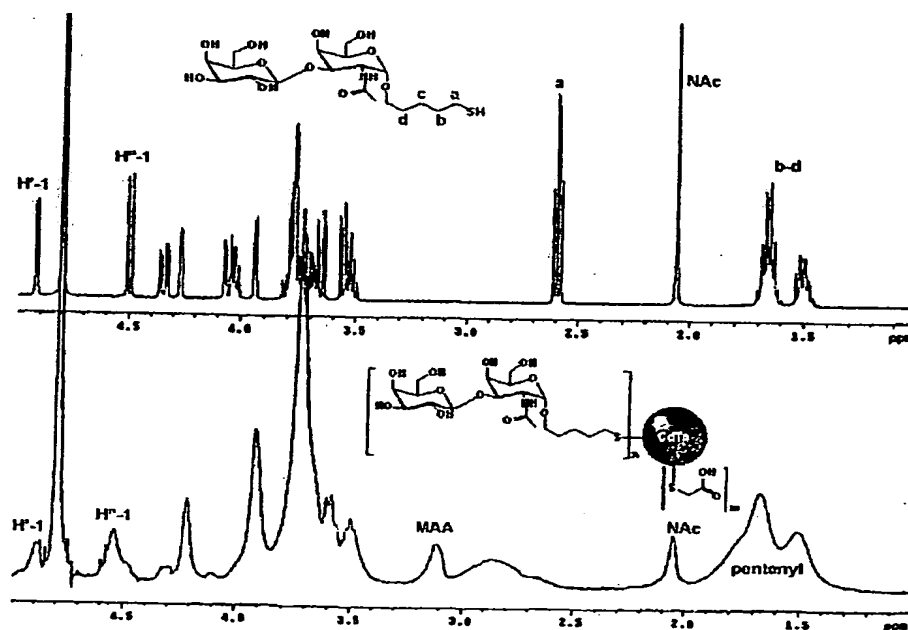
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(72) Inventors; and

(75) Inventors/Applicants (for US only): SVAROVSKY, Sergei A. [RU/US]; 15618 Marathon Circle, #301, North Potomac, Maryland 20878 (US). BARCHI JR., Joseph J.

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(54) Title: CARBOHYDRATE-ENCAPSULATED QUANTUM DOTS FOR BIOLOGICAL IMAGING



(57) Abstract: Biofunctionalized quantum dots include a luminescence-enhancing mercaptoalkanoic acid and/or an ethylene glycol unit linked to the surface of a nanocrystalline core and a biofunctional group linked to the surface. The biofunctionalized quantum dots are made by an efficient synthesis method. The biofunctionalized quantum dots can be used in imaging or therapy applications.

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**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
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